CLAIMS

What is claimed is:

1. A method comprising:

determining a largest absolute value (LAV) within a group of data;

identifying, based on the LAV, a difference table to be used for selecting an optimal Huffman codebook for the group of data, the difference table being associated with two of a plurality of Huffman codebooks;

calculating one or more indexes for the group of data using an expression associated with the two of the plurality of Huffman codebooks;

determining a size difference value for the group of data using the one or more indexes and the difference table; and

selecting one of the two of the plurality of Huffman codebooks based on the determined size difference value.

2. The method of claim 1 further comprising:

creating a plurality of difference tables, each of the plurality of difference tables being associated with distinct two of the plurality of Huffman codebooks.

3. The method of claim 2 wherein every entry in each of the plurality of difference tables contains a length difference value that is a difference between corresponding code length entries in the distinct two of the plurality of Huffman codebooks.

4.   The method of claim 1 wherein the group of data is a section containing one or more n-tuples of quantized spectral coefficients.

5.   The method of claim 1 wherein the difference table is identified based on a predefined correspondence between the LAV and the difference table.

6.   The method of claim 5 wherein the predefined correspondence is determined based on statistical data that indicates that the associated two of the plurality of Huffman codebooks have high likelihood of being an optimal codebook for the group of data with said LAV.

7.   The method of claim 1 wherein determining a size difference value for the group of data comprises:

for each of the one or more indexes, retrieving a corresponding entry from the difference table; and

summing the retrieved entry to determine the size difference value for the group of data.

8.   The method of claim 1 wherein one of the two of the plurality of Huffman codebooks is selected depending on whether the determined size difference value is greater than zero.

9.   The method of claim 1 wherein:

the plurality of Huffman codebooks represents eleven Huffman codebooks; and

the difference table is one of five difference tables.

10.　The method of claim 9 wherein the five difference tables includes a first difference table associated with a first and second of the eleven Huffman codebooks, a second difference table associated with a third and fourth of the eleven Huffman codebooks, a third difference table associated with a fifth and sixth of the eleven Huffman codebooks, a fourth difference table associated with a seventh and eighth of the eleven Huffman codebooks, and a fifth difference table associated with a ninth and tenth of the eleven Huffman codebooks.

11.　The method of claim 1 wherein the expression associated with the two of the plurality of Huffman codebooks does not include multiplication operations.

12.　A computer readable medium that provides instructions, which when executed on a processor cause the processor to perform a method comprising:

determining a largest absolute value (LAV) within a group of data;

identifying, based on the LAV, a difference table to be used for selecting an optimal Huffman codebook for the group of data, the difference table being associated with two of a plurality of Huffman codebooks;

calculating one or more indexes for the group of data using an expression associated with the two of the plurality of Huffman codebooks;

determining a size difference value for the group of data using the one or more indexes and the difference table; and

selecting one of the two of the plurality of Huffman codebooks based on the determined size difference value.

13. The computer readable medium of claim 12 wherein the method further comprises:

creating a plurality of difference tables, each of the plurality of difference tables being associated with distinct two of the plurality of Huffman codebooks.

14. The computer readable medium of claim 12 wherein the group of data is a section containing one or more n-tuples of quantized spectral coefficients.

15. The computer readable medium of claim 12 wherein the difference table is identified based on a predefined correspondence between the LAV and the difference table.

16. A computerized system comprising:

a memory; and

at least one processor coupled to the memory, the at least one processor executing a set of instructions which cause the at least one processor to

determine a largest absolute value (LAV) within a group of data;

identify, based on the LAV, a difference table to be used for selecting an optimal Huffman codebook for the group of data, the difference table being associated with two of a plurality of Huffman codebooks;

calculate one or more indexes for the group of data using an expression associated with the two of the plurality of Huffman codebooks;

determine a size difference value for the group of data using the one or more indexes and the difference table; and

select one of the two of the plurality of Huffman codebooks based on the determined size difference value.

17.   The system of claim 16 wherein the at least one processor executes a set of instructions which cause the at least one processor to further create a plurality of difference tables, each of the plurality of difference tables being associated with distinct two of the plurality of Huffman codebooks.

18.   The system of claim 16 wherein the group of data is a section containing one or more n-tuples of quantized spectral coefficients.

19.   The system of claim 16 wherein the difference table is identified based on a predefined correspondence between the LAV and the difference table.

20.   An encoding apparatus comprising:

a set of difference tables, each difference table in the set being associated with two of a plurality of Huffman codebooks; and

a Huffman encoding module to determine a largest absolute value (LAV) within a group of data, to identify, based on the LAV, one difference table within the set that is to be used for selecting an optimal Huffman codebook for the group of data, to calculate one or more indexes for the group of data using an expression associated with two of the plurality of Huffman codebooks that are associated with the identified difference table, to determine a size difference value for the group of data using the one or more indexes and the identified difference table, and to select one of the two associated Huffman codebooks based on the determined size difference value.

21.   The encoding apparatus of claim 20 wherein the group of data is a section containing one or more n-tuples of quantized spectral coefficients.

22.   The encoding apparatus of claim 20 wherein the difference table is identified based on a predefined correspondence between the LAV and the difference table.

23.   An apparatus comprising:

means for determining a largest absolute value (LAV) within a group of data;

means for identifying, based on the LAV, a difference table to be used for selecting an optimal Huffman codebook for the group of data, the difference table being associated with two of a plurality of Huffman codebooks;

means for calculating one or more indexes for the group of data using an expression associated with the two of the plurality of Huffman codebooks;

means for determining a size difference value for the group of data using the one or more indexes and the difference table; and

means for selecting one of the two of the plurality of Huffman codebooks based on the determined size difference value.

24. A machine-readable medium storing a description of a circuit, said circuit comprising:

a set of difference tables, each difference table in the set being associated with two of a plurality of Huffman codebooks; and

a Huffman encoding module to determine a largest absolute value (LAV) within a group of data, to identify, based on the LAV, one difference table within the set that is to be used for selecting an optimal Huffman codebook for the group of data, to calculate one or more indexes for the group of data using an expression associated with two of the plurality of Huffman codebooks that are associated with the identified difference table, to determine a size difference value for the group of data using the one or more indexes and the identified difference table, and to select one of the two associated Huffman codebooks based on the determined size difference value.